

IN THE CLAIMS:

1. (Previously Presented) An optical scanner suitable for scanning a generally vertical object, comprising:

a scanning body, comprising a transparent window on a top surface thereof;

a focusing device, including:

an arm, with one end coupled to the scanning body,

a reflective mirror, disposed on the arm, and

a lens, disposed on the arm and located at a reflecting path of the reflective mirror, and wherein the lens is capable of horizontally focusing an image of a generally vertical object through the transparent window, the generally vertical object being disposed at a location remote from the transparent window; and

a scanning module, disposed within the scanning body and capable of reciprocally moving underneath the transparent window, and wherein the scanning module is capable of obtaining an image of the generally vertical object focused by said focusing device, the scanning module comprising:

a shell, comprising a light cone opening capable of receiving an imaging light of the generally vertical object,

a first lens, disposed within the shell. and

an optical sensor, disposed within the shell and located on an optical length following the first lens of the scanning module.

2. (Previously Presented) The optical scanner according to claim 1, further comprising a fine tuning device disposed on the arm capable of reducing a height of the arm and adjusting a focal length of the lens of the focusing device.

3. (Previously Presented) The optical scanner according to claim 1, wherein the generally vertical object includes a blackboard.

4. (Previously Presented) The optical scanner according to claim 1. wherein the generally vertical object includes a whiteboard.

5. (Original) The optical scanner according to claim 1, further comprising a projecting lamp source disposed at an internal bottom of the scanning body.

6. (Previously Presented) The optical scanner according to claim 1, further comprising a reflective mirror set installed in the shell and located along an optical path prior to the first lens of the scanning module.

7. (Previously Presented) An optical scanner suitable for scanning a generally vertical object and a generally horizontal object, the optical scanner comprising:

- a scanning body, comprising a transparent window on a top surface thereof;

- a lid, pivotally connected to the scanning body capable of covering the transparent window;

- a focusing device, including:

- an arm, with one end coupled to the scanning body,

- a reflective mirror, disposed on the arm, and

- a lens, disposed on the arm and located at a reflecting path of the reflective mirror, and wherein the lens is capable of horizontally focusing an image of a generally vertical

- object through the transparent window, the generally vertical object being disposed at a location remote from the transparent window; and

- a scanning module, disposed within the scanning body and capable of reciprocally moving underneath the transparent window, and wherein the scanning module is capable of obtaining an image of the generally vertical object focused by said focusing device, the scanning module comprising:

- a shell, comprising a light cone opening capable of receiving imaging light of the generally vertical object and the generally horizontal object,

- a first lens, disposed within the shell, and

- an optical sensor, disposed within the shell and located on an optical length following the first lens.

8. (Original) The optical scanner according to claim 7, wherein the first lens comprises a lens with dual focal points.

9. (Original) The optical scanner according to claim 7, further comprising a second lens with a focal length different from that of the first lens, the first and second lenses are switchable with each other.

10. (Previously Presented) The optical scanner according to claim 7, further comprising a fine tuning device disposed on the arm capable of reducing the height of the aim and adjusting a focal length of the lens of the focusing device.

11. (Previously Presented) The optical scanner according to claim 7, wherein the generally vertical object includes a blackboard.

12. (Previously Presented) The optical scanner according to claim 7, wherein the generally vertical object includes a whiteboard.

13. (Original) The optical scanner according to claim 7, further comprising a projecting lamp source disposed at an internal bottom of the scanning body.

14. (Previously Presented) The optical scanner according to claim 7, further comprising a reflective mirror set installed in the shell and located along an optical path prior to the first lens of the scanning module.

15. (Previously Presented) A method, comprising:
focusing an image of a first object through a transparent window of an optical scanner, wherein the first object is positioned remote from said transparent window, and wherein the transparent window is capable of supporting a second object thereon; and
scanning the image focused through the transparent window to obtain an image of the first object.

16. (Previously Presented) The method of claim 15, further comprising linking with an electronic device capable of storing the image obtained at said scanning.

17. (Previously Presented) The method of claim 15, further comprising illuminating the image with a light emanating from a light source.

18. (Previously Presented) The method of claim 15, further comprising:
in a first mode, scanning the image focused through the transparent window to obtain the image of the first object; and

in a second mode, focusing an image of a second object through the transparent window of the optical scanner, wherein the second object is positioned adjacent said optical scanner, and scanning the image focused through the transparent window to obtain an image of the second object.

19. (Previously Presented) The method of claim 18, wherein said first object has a generally vertical orientation and wherein said second object has a generally horizontal orientation.

20. (Previously Presented) The method of claim 15, further comprising projecting an image from the optical scanner.

21. (Previously Presented) An apparatus, comprising:
means for focusing an image of a first object through a transparent window of a scanning body, wherein said first object is positioned remote from said transparent window, and wherein the transparent window is capable, of supporting a second object thereon: and
means for scanning the image focused through the transparent window to obtain an image of the first object.

22. (Previously Presented) The apparatus of claim 21, further comprising means for linking with an electronic device capable of storing the image obtained by said scanning means.

23. (Previously Presented) The apparatus of claim 21, further comprising means for illuminating the image for scanning.

24. (Previously Presented) The apparatus of claim 21, further comprising means for scanning a second object positioned adjacent said scanning body.

25. (Previously Presented) The apparatus of claim 24, wherein said first object has a generally vertical orientation and wherein said second object has a generally horizontal orientation.

26. (Previously Presented) The apparatus of claim 21, further comprising means for projecting an image.

27. (Previously Presented) An apparatus, comprising:
a scanning body;
a transparent window disposed on a surface of the scanning body wherein the transparent window is capable of supporting a second object thereon;
a scanning module disposed within the scanning body;
a focusing device, wherein the focusing device is capable of focusing an image of an object through the transparent window, the object being disposed at a location remote from the transparent window; and
wherein the scanning module is capable of obtaining an image of the object focused by said focusing device.

28. (Previously Presented) An apparatus as claimed in claim 27, wherein the image focused by said focusing device is obtained from light reflected off the object from a light source disposed external to the scanning body.

29. (Previously Presented) An apparatus as claimed in claim 27, wherein the image focused by said focusing device is obtained from light reflected off a second object from a light source disposed internal to the scanning body, the second object being disposed at a location adjacent the scanning body.

30. (Previously Presented) An apparatus as claimed in claim 29, said scanning module being capable of obtaining an image of the second object when the second object is generally horizontally positioned with respect to the transparent window.

31. (Previously Presented) An apparatus as claimed in claim 27, wherein the object is at least one of a blackboard or a chalkboard, or a combination thereof.

32. (Previously Presented) An apparatus as claimed in claim 27, said scanning module being capable of obtaining an image of the object when the object is generally vertically positioned with respect to the transparent window.

33. (Previously Presented) The method of claim 15, wherein said scanning comprises scanning the image focused through the transparent window to obtain an image of the first object by reciprocally moving underneath the transparent window.

34. (Previously Presented) The apparatus of claim 21, wherein said means for scanning comprises means for scanning the image focused through the transparent window to obtain an image of the first object by reciprocally moving underneath the transparent window.

35. (Previously Presented) An apparatus as claimed in claim 27, wherein said scanning module is further capable of obtaining an image of the object focused by said focusing device by reciprocally moving underneath the transparent window.

36. (Previously Presented) An apparatus, comprising:
a scanning body;
a transparent window disposed on a surface of the scanning body;
a scanning module disposed within the scanning body;
a focusing device, wherein the focusing device is capable of focusing an image of an object through the transparent window, the object being disposed at a location remote from the transparent window;
wherein the scanning module is capable of obtaining an image of the object focused by said focusing device; and
wherein the object is at least one of a blackboard or a chalkboard, or a combination thereof.